Basic Principles of Hedge Accounting

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BASIC PRINCIPLES OF HEDGE ACCOUNTING

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Abstract: The development of the capital markets increases the key role of the financial manager both in using the new techniques for administrating the risks and in assessing hedge effectiveness. Risk means possible uncertainty regarding cash flows, influencing the fair value of assets and liabilities or the value of cash flow relating to future transactions of the entity. This article emphasizes that possible financial risk in international business, like as price risk, credit risk, risk of liquidity, can be hedged using financial instruments, especially derivatives, like as forward, futures, options and swaps. The accounting treatment for these instruments is presented in accordance to the basic principles of hedge accounting imposed by IAS 39. Additionally, there are references to the most important requirements regarding the accounting rules regarding recognition and measurement of hedged derivatives according to the Romanian regulations.

"A risk is a risk is a risk, manage it!"
Magnus Lind

Introduction

Most business activity involves risks and uncertainties, and the role of today's financial manager is more complex than ever, being faced with the necessity of elaborating effective financial strategies in order to manage these risks and uncertainties. One way in which this can be done is to enter into transactions that expose the entity to risk and uncertainty that fully or partially offsets one or more of the entity's other risks and uncertainties, transactions known as 'hedges'. The instrument acquired to offset risk or uncertainty is known as 'hedging instrument' and the risk or uncertainty hedged is known as 'hedged item'. When certain criteria are met, International Accounting Standard (IAS) 39 "Financial instruments: Recognition and Measurement" permits entities to apply special accounting treatment, so-called 'hedge accounting'. The result is that both hedging instruments and hedged items are reported differently from the normal accounting principles required. The aim of hedge accounting is to match the accounting effect of the hedged item and of the hedging instrument in profit or loss.

1. Financial risk components

Categorizing risks helps users to identify, understand and monitor entities' potential risks. The components of financial risk related to financial instruments are the following:

- **market risk**: the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices; the factors of market risk are:
  - *currency risk*: the risk that the fair value or future cash flows of a financial instrument will be affected by changes in foreign exchange rates;
  - *interest rate risk*: the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates;
  - *price risk*: the risk that the fair value or future cash flows of a financial instrument will change as a result of market prices changes, caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market;
- **credit risk**: the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation;
- **liquidity risk**: the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities or in selling quickly a financial asset, at its fair value.

The current economic situation and resulting regulatory pressure have driven financial executives and senior management to focus more attention on risk convergence - the assessment, mitigation and reporting of risk. Ernst & Young, in partnership with OpRisk & Compliance, conducted a survey of finance professionals (published in May 2008), asking about the challenges, investments and adjustments are making to their risk management procedures in pursuit of convergence. Responses showed real progress concerning the way of thinking, considering that 63% of respondents said that recent market events have significantly or somewhat increased the importance of risk convergence to their firm, and another 16.9% indicated that this issue is a critical concern. Implementing a risk convergence programme has happened at 19.7% of firms, compared with just 9%, according to the previous survey made in September 2007. As a conclusion, important steps were made towards recognizing the need to adapt risk programs to regulatory requirements, improve reporting and prevent risk-control fatigue. But, based on the same study, specific areas still need improvements. For example, only 12% of respondents said that work is underway (comparing to 15% in 2007), most likely as a result of restrained spending caused by the economic downturn.

According to Magnus Lind, Managing Partner of NFS - Experts in Treasury, the problem with financial risk is that it is regarded as something else than a business risk. The senior management delegates it to financial executives to eradicate it. This being impossible, one thing that can be done is to postpone the effects, using that time to adjust to the new conditions. Thus, financial risks can be managed as a separate risk/opportunity in the same way as all other business risks.

In order to manage costly exposure to risk, entities use financial instruments, especially derivatives. When they are designated as hedge instruments, their fair value or cash flows are expected to compensate changes in fair value or cash flows of hedged items. Non-derivative financial instruments can be designated as hedging instruments only for foreign currency risk.

2. Derivative instruments

A **derivative instrument** (or simply '**derivative**') is a financial instrument which derives its value from the value of some other financial instrument or variable. Its fair value changes with the changes of hedged item (i.e. changes of interest rate, security price, commodity price, currency rate, stock exchange indices value).

Derivatives have two components: *the underlying variable*, also called underlying asset or 'underlying' (the payoffs depend on its price change), and the *notional component*, as a certain amount of assets or liabilities whose value derives from underlying variable.

Usually, derivatives are contracts to buy or sell the underlying asset at a future time, with the price, quantity and other specifications defined today. Contracts can be binding for both parties or for one party only, with the other party reserving the option to exercise or not. If the underlying asset is not traded, for example if the underlying is an index, some kind of cash settlement has to take place.

From the accounting point of view, *a derivative is a financial instrument which meets all the following conditions:*

(a) whose value changes in response to the change in the specified underlying;

(b) that requires no initial net investment or the initial investment should be less than the investment needed to acquire a primary financial instrument that has a similar response to changes in market conditions; and

(c) that is settled at a future date.

Derivatives are traded in organized exchanges as well as over the counter (OTC). Because the value of a derivative is contingent on the value of the underlying, the notional value of derivatives is recorded off the balance sheet of an institution, although their fair market value is recorded on the balance sheet.

Derivatives can be used to mitigate the risk of economic loss arising from changes in the value of the underlying. This activity is known as ***hedging***. Alternatively, derivatives can be used by investors to increase the profit arising if the value of the underlying moves in the direction they expect, bearing extra risk by ***speculations***. Examples of derivatives include forwards, futures, options, swaps, and many others.

The forward contract is an OTC agreement between two parties, to buy or sell an asset at a certain time in the future for a certain price. The price of the underlying instrument, in whatever form, is paid before control of the instrument changes. This is one of the many forms of buy/sell orders where the time of trade is not the time where the securities themselves are exchanged. The forward price is commonly contrasted with the spot price, which is the price at which the asset changes hands on the spot date. The difference between the spot and the forward price is the forward premium or forward discount, generally considered in the form of a profit or loss, by the purchasing party.

The forward contract is a non-standardized contract written by the parties themselves, mostly used by hedgers that want to eliminate volatility of an asset price. They are typically, but not always, settled by the payment of cash or the provision of some other financial instrument rather than the actual delivery of the underlying item and therefore are valued and traded separately from the underlying item. Being an unconditional financial contract it represents an obligation for settlement on a specified date; at the inception of the contract, risk exposures of equal market value are exchanged and hence the contract has zero value; some time must elapse for the market value of each party’s risk to differ so that an asset (creditor) position is created for one party and a liability (debtor) position for the other.

The futures contract is a type of derivative instrument, in which two parties agree to transact a set of financial instruments or physical commodities for future delivery at a particular price. In case of buying a futures contract, the buyer basically agrees to buy something that a seller has not yet produced for a set price. But participating in the futures market does not essentially mean receiving or delivering large inventories of physical commodities, because futures mean hedging risks or speculating, rather than exchanging physical goods (which is the primary activity of the spot market).

The consensus on the financial markets is that futures provide an outlet for intense competition among buyers and sellers and, more important, a way to manage price risks. Futures contracts have *clearing houses* that guarantee the transactions, which drastically

lowers the probability of default. One of the most important benefits gained from trading in the futures market is that traders can assume any of a wide range of commodities or other assets with a relatively small initial investment, including the broker's commission and a margin (a 'good faith' guarantee). The futures market is extremely liquid, risky and complex by nature.

An option is a contract between a buyer and a seller that gives the buyer the right - but not the obligation - to buy or to sell a particular asset (the underlying asset) at a later day at an agreed price. In return for granting the option, the seller collects a payment (the *premium*) from the buyer, as a protection from the buyer's ability to revoke the contract. **A call option** gives the buyer the right to buy the underlying asset; **a put option** gives the buyer the right to sell the underlying asset. If the buyer chooses to exercise this right, the seller is obliged to sell or buy the asset at the agreed price. The alternative is choosing not to exercise the right, letting the option to expire, meaning that the money spent to purchase it is lost.

For the buyer, the potential loss is limited to the price paid to acquire the option and the potential gain is unlimited. Option contracts, like stocks, are therefore said to have an asymmetrical payoff pattern. For the seller, the potential loss is unlimited unless the contract is covered; this means that he already owns the underlying.

Option contracts are most frequently used as either *leverage* or *protection*. As leverage, options allow the buyer to control equity in a limited capacity for a fraction of what the shares would cost. The difference can be invested elsewhere until the option is exercised. As protection, options can guard against price fluctuations in the near term because they provide the right to acquire the underlying at a fixed price for a limited time.

A swap is a derivative in which two counterparties agree to exchange one stream of cash flow against another stream. These streams are called the *legs* of the swap. The cash flows are calculated over a notional principal amount, which is usually not exchanged. Consequently, swaps can be used to create unfunded exposures to an underlying asset, since counterparties can earn the profit or loss from movements in price without having to post the notional amount in cash or collateral.

Swaps can be used to *hedge* certain risks such as interest rate risk, or to *speculate* on changes in the expected direction of underlying prices.

3. Accounting treatment for derivatives

As the use of derivatives has become more and more intensive, concern about their accounting has increased. The main concern is that derivatives are traditionally off balance sheet items and there is little disclosure about the risks implied by their use. IAS 39 is an effort along the direction of an improved transparency by means of strict rules for the accounting of derivatives.

In many working research, IAS 39 is referred as the promoter of an accounting revolution, exactly because of the approaches on treating the problems related to the recognition of financial derivatives and hedge accounting. Before IAS 39, the value of a derivative was recorded off the balance sheet, thus reflecting minor effects of risk management. Accounting principles and disclosures requirements in the previous international accounting standards were not keeping up with the rapid development, increasing complexity and constantly changing of financial instruments. An effective financial presentation of certain risks, based on improved rules of recognition and measurement, became vital for the users', and especially the investors', understanding of financial reports for their decision-making processes. In order to improve the quality of financial reporting, and increase the level of transparency and international comparability, International Accounting Standard Board (IASB) issued IAS 39, containing a suite of important innovations in accounting treatments of financial instruments, such as: recognition of financial derivatives used for hedges in the balance sheet; measurement of

financial derivatives based on fair value; subsequent recognition of changes in fair value, according to hedge effectiveness.

Obviously, all these improvements imply both different professional judgements and adequate informational system, in order to sustain risk management financial strategies.

The basic principle in IAS 39 is that all financial instruments, derivatives as well, are initially recognised at **cost**, which is the **fair value** of the consideration given or received. Subsequently, derivatives are always measured at fair value, with gains and losses in the income statement. *The fair value of a financial asset or liability is the amount for which the financial asset could be exchanged, or the financial liability settled, between knowledgeable, willing parties in an arm's length transaction*. This basic principle is according to categorizing derivatives (not held for hedging activities) as financial assets held for trading.

IAS 39 requirement for fair value can be illustrated by the following example. A fixed rate debt is converted into a variable interest rate using an interest rate swap. The debt and the swap are considered together as a synthetic variable rate borrowing, and the amount receivable or payable under the swap is used to adjust the interest rate payable on the debt. The accounting treatment before the introduction of IAS 39 was the following: the swap, perfectly matching with the debt obligation, was recorded at its nominal cost together with the debt and was disclosed as part of the terms of the debt. But this way of accounting makes it difficult to determine the underlying economics and to assess and manage the risk incurred through derivatives.

Hence the need for disclosure and the logical choice to **separate derivatives from the underlying host contract in order to record each item at its fair value**, made the risk more visible. An exception to the general rule can be made when hedge accounting is applicable. When hedge accounting does not apply, the derivative is recorded at its fair value, whereas assets and liabilities are recorded at their historical cost leading to a clear assessment of the derivative exposure.

In summary, the general principle set by IAS 39, regardless the applicability of hedge accounting or not, is to ensure disclosure of all type of risks associated with a derivative, either they are related to the derivative itself or to the ineffectiveness of a hedge.

According to the Romanian accounting regulations, the basic principles of financial instruments accounting are imposed by the *Minister of Public Finance Order 1752/2005 for approving the Accounting Regulations according to the European Directives*, subsequently modified, section 7.2.5.2. "Fair Value measurement rules for Financial Instruments". Accordingly, those elements from financial reports that meet the criteria for financial derivatives are measured according to basic-principles of recognition and measurement of the financial assets and liabilities. Same rule is applied to financial derivatives.

The fair-value rule is an alternative treatment allowed only in the consolidated financial statements. Thus, in the individual financial reports, the derivatives are measured according to the general rules applied for any other financial asset or liability. This means that entities don't apply the fair-value rule, and the effects of derivatives are recognised in the income statement not immediately, but at their maturity.

Additional guidance issued by the Minister of Public Finance in 2008, emphasizes that in case of applying fair-value measurement on initial recognition of a financial instrument, the subsequent changes in fair value have to be recognised in profit or loss and, as an exception, as a component of equity (i.e. a fair value reserve) only if the financial instrument is used for hedging, according to the principles of hedge accounting which allows that some or all fair value subsequent changes not to be recognised in profit or loss.

The Romanian regulation concerning the credit institutions, contained by NBR Governor Order 13/2008 for approving the *Accounting Regulations according to the European Directives, applied to credit institutions, non-banking financial institutions and the Guarantee Fund of Deposits in banking system* (effective date January 1st, 2009), contains a lot more details regarding the accounting principles applying to derivatives,

these being in accordance to IAS 39. In summary, financial derivatives are initially recognised at their fair value, given by the consideration paid or received. Subsequently measurements have to be done monthly, in order to determine the fair value changes. As an exception the derivatives based on equity instruments which are not traded on an active capital market, have to be recognised at their cost, because the criterion regarding the reliable measurement for recognition is not fulfilled. Fair value of derivatives is recorded in the balance sheet and the gains or losses resulting from the subsequent measurement are to be recognised in the income statement, excepting hedge derivatives. Although the regulation does not clearly specify, the derivatives are categorized as held for trading instruments, same as in IAS 39, as components of financial assets at fair value through profit or loss. Their notional amount is recorded off balance sheet.

4. Principles of hedge accounting

While risk management is considered a necessity from an economic standpoint, it is a very complex and controversial from an accounting and financial reporting perspective. But no matter the complexity, understanding how to use risks management tools affects financial statements and makes a significant impact on reported earnings.

Hedging is applied to minimize the risks borne in certain business transactions and/or balance sheet items. The desired effect of a hedging relationship is that the changes of the hedging instrument (derivate) and the hedged item compensate each other. The intention of hedge accounting is to report the opposite developments of the hedged item and the hedging instrument in a way that gains of one item compensate the losses of the other item, in the same period of time. From a pure economic perspective, the entity would not face a gain or loss at all, since the opposite performances of the hedged item and the hedging instrument would compensate each other.

Generally speaking, the purpose of hedge accounting is to reduce earnings volatility. In opinion of Charles Mulford, director of the Georgia Tech Financial Analysis Lab, earnings volatility has a negative effect on a company's value. Volatility is reduced because hedge accounting allows companies to record in earnings a gain or loss on the hedged item, and the loss or gain on the related hedge, in the same time period. That matching applies whether a gain or loss on the hedged item is recognized right away or deferred in accumulated other comprehensive income. Hedge accounting modifies the usual accounting treatment of a hedging instrument and/or a hedged item to enable gains and losses on the hedging instrument to be recognised in the income statement in the same period as offsetting losses and gains on the hedged item. This is a matching concept. A pre-requisite for hedge accounting is that a hedging instrument, normally a derivative, is designated as an offset to changes in the fair value or cash flows of a hedged item.

Derivatives are commonly used to protect from risks and uncertainties the hedged items, like as: recognised assets and liabilities that are measured at cost, amortised cost or at fair value with gains and losses recognised in equity or items such as forecast transactions or firm commitments that are not recognised in the balance sheet. This creates a mismatch in the timing of gain and loss recognition. Hedge accounting seeks to correct this mismatch by changing the timing of recognition of gains and losses on either the hedged item or the hedging instrument. This avoids much of the volatility that would arise if the derivative gains and losses were recognised in the income statement, as required by normal accounting principles.

The IASB believes that, to ensure that hedge accounting techniques are applied in a way that results in the provision of information that is relevant and reliable, it is necessary for strict criteria to be met. As a matter of fact, many times financial and accounting experts complained about the difficult way of measuring financial instruments. As a result, IASB has started the formal process of considering the possibilities for reducing complexity in IAS 39. Different criteria have to be taken into account relating to

the following issues: hedged items, hedges instruments eligibility, hedge transactions, effectiveness tests.

Hedged items have to meet the following conditions: (1) they expose the entity to the risk of fair value changes or future cash flows variability; and (2) they are designated as hedged.

Hedging instruments can be especially derivatives, only if they meet certain conditions: (1) formal designation and documentation of hedging relationship at the inception of hedge; (2) hedge is expected to be highly effective; (3) effectiveness of hedge can be reliably measured; (4) hedge is assessed and determined to have been highly effective; and (5) for cash flow hedges, a forecast transaction is highly probable and presents an exposure to variations in cash flows.

Hedge transactions are required to be qualified for hedge accounting, based on the following criteria:

(1) Both the hedged item and the hedging instrument should be clearly identified and documented. Management must document exactly what is the hedged risk and how it will assess the effectiveness of the hedge.

(2) The hedge must be expected to be effective: the impact of the hedged risk on the hedged and on the hedging item must ‘almost fully‘ offset; subsequently, effectiveness must be tested regularly throughout its life, considering that a hedging relationship is defined for the entire life of the hedging instrument.

(3) Hedge effectiveness must be capable of being reliably measured on an ongoing basis; hedge ineffectiveness is required to be identified and reported in profit or loss, and, if ineffectiveness exceeds a certain limit, the use of hedge accounting is precluded.

(4) When hedging future variability in cash flows, there must be a high probability of those cash flows occurring and affecting profit or loss.

Effectiveness tests must be prospective and retrospective. To be classified as effective, the hedge does not have to be perfect. The constraint is rather that the hedge is expected to be: (i) highly effective at inception, i.e. changes in fair values should ‘almost fully’ offset; and (ii) effective in practice throughout the life of the hedging relationship, i.e. the ratio of the change in fair value of the hedged item and the hedging item must remain within a range of 80% to 125%. If during its life the hedging relationship fails to remain within the pre-set range, the derivative will be accounted for at its mark-to-market whereas the assets or liabilities at historical cost.

Complete hedge documentation involves the following:

(1) Description of risk management objective and strategy

(2) Type of hedging relationship (fair value hedge, or cash flow hedge)

(3) Nature of the risk being hedged (commodity)

(4) Identification of the hedged item: a. Is the hedged item a forecast transaction?

If yes: b. Expected hedged amount; c. Nature of forecast transaction; d. Expected timing of the forecast transaction; e. Expected price for forecast transaction; f. Why it is highly probable to occur; g. Method of reclassifying into profit and loss amounts deferred in equity (basis adjustment or not)

(5) Identification of hedging instrument

(6) Prospective effectiveness testing: a. Description of the method and its application to testing; b. Frequency of testing

(7) Retrospective effectiveness testing: a. Description of the method and its application to testing; b. Frequency of testing.

Additionally, this extensive documentation is necessary in order to be in compliance with the requirements of International Financial Reporting Standard (IFRS) 7 “Financial Instruments: Disclosures”. This standard requires public disclosure of certain management information to allow shareholders to view financial instruments and risk management activities ‘through the eyes of management’. Thus, reporting entities have to disclose the

sensitivity of their results to movements in market risks as a consequence of their financial instruments.

Summarizing the above requirements, hedge accounting should be available only for those hedges that are effective in offsetting risks and uncertainties between the hedged item and the hedging instrument that affect profit or loss. Underpinning this is the requirement that the effectiveness of the hedge can be reliably measured.

Technically, the hedge accounting process is a three phase model, every phase being a distinctive stage of the life-cycle of hedging.

Table 1. Phases of hedge accounting process

Phase I. Hedge Designation	*A. Formal designation and documentation of the hedge*	- risk management strategy for undertaking the hedge; - type of hedge and risk being hedged; - specification of hedged item and hedging instrument; - designation date; - assessment of effectiveness testing, i.e. method, frequency.
	B. Prospective test at inception of the hedge	
Phase II. Hedge Maintenance	*A. Verification of high effectiveness at each reporting date*	
	B. Specific hedge accounting entries, according to the hedge relationship	
	C. Assessment of prospective effectiveness at each reporting date	
Phase III. Hedge Termination	*A. Specifying the cause*	- non-qualified hedge, failure of retrospective hedge effectiveness; - hedging instrument or hedged item expiration; - forecast transaction is no longer expected to occur; - designation is revoked by management decision.
	B. Generating accounting entries, specific to the hedge relationship	

5. Specific accounting treatment for hedging relationships

With the IFRS, hedge accounting works in two ways: it either defers the recognition of losses or it brings forward the recognition of gains in the profit and loss statement. In this manner, gain or loss from the hedged item is recognised at the same time as the offsetting gain or loss from the hedging instrument.

Specific requirements are imposed by IASB on accounting the three types of hedge relationships emphasized by IAS 39: fair value hedges, cash flow hedges and hedges of the net investment in a foreign operation.

A. Fair value hedges

A fair value hedge is a hedge of the exposure to changes in the fair value of a recognised asset or liability or an unrecognised firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect profit or loss.

Accounting rules:

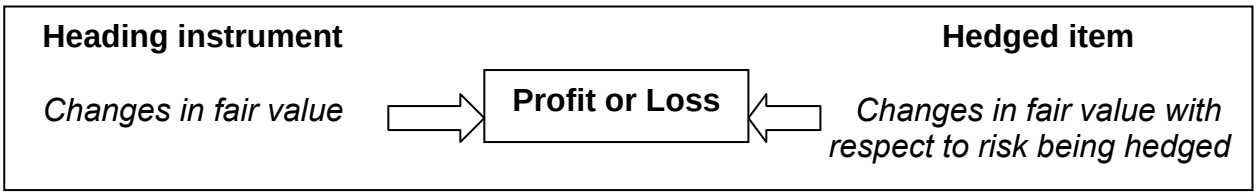

Fig. 1. Accounting for fair value hedge

▪ The gain or loss from re-measuring the hedging instrument at fair value should be recognised in profit or loss.

▪ For non-derivative hedging instruments used to hedge foreign currency risk, only the foreign currency component of its carrying amount should be taken to profit or loss.

▪ The gain or loss on the hedged item, attributable to the hedged risk, should be recognised in profit or loss immediately by adjusting carrying amount of hedged item, to offset the change in carrying value of the hedging instrument. This applies for items that are otherwise recognised at cost, and for available-for-sale financial assets.

▪ Any hedge ineffectiveness is recognised immediately in profit or loss.

Example – Fair Value Hedge:

During year 1, Entity A purchases a debt security for €300 and classifies it as available-for-sale. Gains and losses arising on it are therefore taken to equity according to IAS 39. At the end of year 1, the current fair value of the security is €320. To protect this value, the entity enters into a hedge in year 2 by purchasing a derivative. At the end of year 2 the fair value of the debt security is €310. The journal entries are presented below:

Year 1

▪ *Recording the purchasing the debt security:*

Dr	Investment in debt security	100		
	Cr	Cash		100

▪ *Recording the increasing in the fair value of the debt security:*

Dr	Investment in debt security	20		
	Cr	Equity		20

Year 2

▪ *Recording the increasing in the fair value of the derivative:*

Dr	Derivative asset	10		
	Cr	Gain (taken to profit or loss)		10

▪ *Recording the decreasing in the fair value of the debt security:*

Dr	Loss (taken to profit or loss)	10		
	Cr	Investment in debt security		10

In the year 2 journal entries have recorded the hedging instrument (the derivative) at its fair value of €10, arising as it has protected the entity from a €10 fall in the fair value of the debt security. The debt security is an available-for-sale asset and as such its €10 fall in fair value would normally be taken to equity. However, as it is hedged effectively by the derivative, the loss is taken to profit or loss to offset the change in the fair value of the derivative. As this hedge is fully effective, the net impact in the profit or loss is nil.

B. Cash flow hedges

A cash flow hedge is a hedge of the exposure to variability in cash flows that:

(i) is attributable to a particular risk associated with a recognised asset or liability (such as all or some future interest payments on variable rate debt) or a highly probable forecast transaction; and

(ii) could affect profit or loss.

Accounting rules:

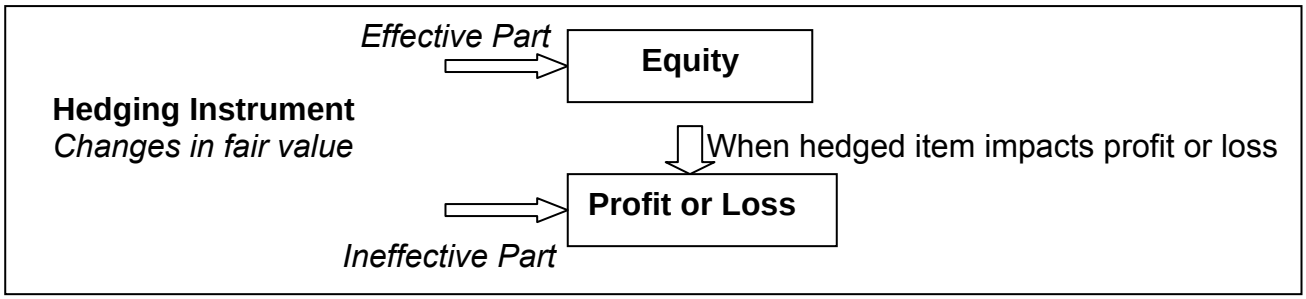

Fig. 2. Accounting for cash flow hedge

The separate component of equity associated with the hedged item is adjusted to the lesser of the following (in absolute amounts): (i) the cumulative gain or loss on the hedging instrument from inception of the hedge; and (ii) the cumulative change in fair value (the present value) of the expected future cash flows on the hedged item from the inception of the hedge. Any remaining gain or loss on the hedging instrument is recognised in profit or loss.

Example – Cash Flow Hedge:

Entity A is a producer which expects to sell on December 31, 20X8, 1,000 pieces of its products. To hedge the risk of price decline, on January 1, 20X7, it enters into a net-settled forward contract on 1,000 pcs. for delivery on December 31, 20X8. Suppose that during 20X7 the forward contract fair value decreased for €10,000 and during 20X8, increased for €6,000. On December 31, 20X8, Entity A sells 1,000 pcs. for €50,000 and settles the forward contract by paying €4,000. Assuming that all conditions for hedge accounting are met, the journal entries are as follows:

Year 20X7

- *January 1: No entry required for entering the forward contract.*
- *December 31: Recording the decreasing in fair value of the forward contract:*

Dr	Equity		10,000	
	Cr	Derivative liability		10,000

Year 20X8

- *December 31: Recording the increasing in fair value of the forward contract:*

Dr	Derivative liability		6,000	
	Cr	Equity		6,000

- *December 31: Recording the forward contract settlement:*

Dr	Derivative liability		4,000	
	Cr	Cash		4,000

- *December 31: Recording the sale and the associated amount deferred in equity related to the hedge of the sale:*

Dr	Cash		50,000	
	Cr	Equity		4,000
	Cr	Sales revenue		46,000

C. Hedges of a net investment in a foreign operation

The amount of a net investment in a foreign operation under IAS 21 “The effects of changes in foreign exchange rates” is the reporting entity’s interest in the net assets of that operation, including any recognised goodwill. Exchange differences arising on the consolidation of these net assets are deferred in equity until the foreign operation is disposed of or liquidated. They are recognised in the income statement on disposal or liquidation as part of the gain or loss on disposal.

Net investment hedge accounting is available only for a foreign entity that is a subsidiary whose functional currency is different from the reporting currency of the group. In other cases, the foreign currency exposure is hedged like any other foreign currency transaction exposures. The net investment hedging model can only be applied at the group level, i.e. the subsidiary, associate etc., which means that the foreign net investment cannot apply net investment hedge accounting in its own books, and neither can the parent entity.

The hedged item in a net investment hedge is designated as the carrying amount of the total net assets (assets less liabilities), regardless of whether individual assets or liabilities in that foreign entity are denominated in a currency different from the foreign entity’s measurement currency.

Accounting rules:

Gain or loss on hedging instrument: (1) effective portion is recognised in equity; (2) ineffective portion is recognised in profit or loss. The foreign currency gains or losses on

the hedging instrument are deferred in equity, to the extent the hedge is effective, until the subsidiary is disposed of or liquidated. When the foreign operation is disposed of gain or loss recognized in equity is reclassified to profit or loss as a reclassification adjustment. Net investment exchange differences are recognized in equity, until the net investment is sold or liquidated.

6. Hedge effectiveness **Tests**

Hedge ineffectiveness can arise for many reasons, including when the hedged item and the hedging instrument: are in different currencies; have different maturities; use different underlying interest or equity indices; use commodity prices in different markets; are subject to different counter-party risks; or where the hedging instrument has a fair value other than zero at inception.

Considering the reasons presented above, IAS 39 requires two kinds of effectiveness tests:

- **A prospective effectiveness test**, as a forward-looking test of whether a hedging relationship is expected to be highly effective in future periods. It is required, at a minimum, at the inception of the hedge and at the time an entity prepares its interim or annual financial statements.

- **A retrospective effectiveness test**, as a backward-looking test of whether a hedging relationship has actually been highly effective in a past period. It is required, at a minimum, at the time an entity prepares its interim or annual financial statements.

A hedge is regarded as highly effective only if both of the following conditions are met:

- At the inception of the hedge and in subsequent periods, the hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk during the period for which the hedge is designated (prospective effectiveness test); and
- The actual results of the hedge are within a range of 80%-125% (retrospective effectiveness test).

IAS 39 specifies the most common methods used for assessing hedge effectiveness prospectively or retrospectively: critical terms comparison; dollar offset method; and regression analysis. The method an entity adopts depends on its risk management strategy and should be included in the documentation at the inception of the hedge.

Critical terms comparison: consists of comparing the critical terms of the hedging instrument with those of the hedged item. The hedge relationship is expected to be highly effective where all the principal terms of the hedging instrument and the hedged item match exactly and there are no features that would invalidate an assumption of perfect effectiveness. This method does not require any calculations and may be used only in limited cases, being the simplest way to demonstrate that a hedge is expected to be highly effective (prospective effectiveness testing). A separate assessment is required for the retrospective effectiveness test, as ineffectiveness may arise even when critical terms match.

Dollar offset method: is a quantitative method that consists of comparing the change in fair value or cash flows of the hedging instrument with the change in fair value or cash flows of the hedged item attributable to the hedged risk. This test can be performed either on a cumulative basis, or on a period-by-period basis. A hedge is highly effective if the results are within the range of 80%-125%. In case of using the method for retrospective effectiveness test, it has the advantage of determining the amount of ineffectiveness required for the accounting treatment. According to John D. Finnerty and Dwight Grant, anyone choosing this testing method should be aware that researchers question its reliability because of its excessive sensitivity to small changes in the value of the hedged item or the derivative.

Example – Testing Hedge Effectiveness:

An entity has inventory valued at €100,000 as hedged item; the hedge is a short position in a futures contract. At the end of the quarter, the value of the inventory increased by 1% (€1,000). The value of short futures position will decrease by €1,000, offsetting the change in the value of the underlying asset (inventory), plus or minus the change in the futures' basis.

If the change in the basis is as little as 0.33% of the notional value, the dollar-offset method implies that the hedge is ineffective because the short futures' value change is ±33% of the inventory's value change.

Regression analysis: investigates the strength of the statistical relationship between the hedged item and the hedging instrument. It involves determining a 'line of best fit' and then assessing the 'goodness of fit' of this line. In the context of assessing hedge effectiveness, it establishes whether changes in the hedged item and hedging instrument are highly correlated. The independent variable reflects the change of the hedged item value, and the dependent variable reflects the change of the hedging instrument value.

Conclusions

Risk management is essential for business and project success, because it focuses on the proactive identification and management of uncertainties in order to minimise threats, maximise opportunities and optimise achievement of objectives. In practice, however, risk management often fails to meet expectations, as demonstrated by repeated business and project failures. For risk management to be effective there is no option but to understand and manage risk attitude. One of the basic pillars of an entity risk management plan is to understand the pros and cons of hedge accounting, which manages the fluctuations in the market value and related impact on the income statement. Electing hedge accounting allows companies to manage risks and uncertainties, in addition to managing the economic risks as a part of the entire risk management process.

But, despite the obvious advantages, hedging and key risk management principles have not been yet experienced and applied as financial tools by many participants on capital markets. A research made by Georgia Tech Financial Analysis Lab, which examined the financial results of 50 companies, dated December 31, 2007, underscores a number of explicit reasons why financial managers shun hedge accounting. For example, companies have substantial costs of documentation and ongoing monitoring of designated hedges, thus applying the rule is not worth. They also invoke the availability of highly-effective natural hedges, as well as the fair-value accounting rule, which broadens the applicability of natural or economic hedges. Another reason is that qualifying hedges are frequently not available, too costly, or too poorly documented. Additionally, lack of available and reliable information on capital markets is brought into question.

In Romania, business protection against risks and uncertainties remains a theoretical concept for most financial managers. Entities are not ready yet to use financial derivatives mostly due to the lack of knowledge. The guarantees required by banks to conduct such transactions are deterrent for small and medium enterprises and protection against the risk involves a cost that usually is quite large, as in a proportion of 99% of cases it is transferred to the beneficiary of product or service. The request for financial derivatives is very small, this being reflected by the reduce volume of transactions with these instruments. According to Iulian Lupu, financial expert in the Department of Trading and Surveillance from Bucharest Stock Exchange, this situation may be overcome through a process of educating companies, in order to increase the share of financial instruments in companies' activities. From another perspective, accountants and financial managers are not comfortable about hedging activities because of the lack of practical experience. One first step must be done towards acquiring solid knowledge about: risk management strategies, hedging with financial derivatives, accounting and disclosing hedging derivatives.

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